

WHAT IS CLAIMED IS:

1. A data duplicating method that connects a first information processing system comprised of a first host computer and a first storage device and at least one second information processing system comprised of a second host computer and a second storage device through a data transfer path and holds the same data in duplicate in said first and second information processing systems by copying first update data generated in said first information processing system to said second information processing system,

wherein said second information processing system possesses difference control information for identifying second update data generated in said second information processing system that takes over and executes a process of said first information processing system when said first information processing system stops operating, and after resumption of operation said first information processing system, said second update data is selectively copied to said first information processing system on the basis of said difference control information.

2. A data duplicating method according to claim 1, wherein said difference control information is a bit map that indicates the presence or absence of completion of data duplication of said first and second update data at a plurality of individual units of data

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storage in each of said first and second storage devices.

3. A data duplicating method that connects a first information processing system comprised of a first host computer and a first storage device and at least one second information processing system comprised of a second host computer and a second storage device through a data transfer path and holds the same data in duplicate in said first and second information processing systems by asynchronously copying first update data generated in said first information processing system to said second information processing system and having, in said first information processing system, first difference control information for identifying said first update data not copied to said second information processing system,

wherein said second information processing system possesses second difference control information for identifying second update data generated in said second information processing system that takes over and executes a process of said first information processing system when said first information processing system stops operating, and after resumption of operation of said first information processing system, data in a range specified by said first and second difference control information is selectively copied to said first information processing system.

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4. A data duplicating method according to claim 3, wherein said first and second difference control information are a bit map that indicates the presence or absence of completion of data duplication of said first and second update data at a plurality of individual units of data storage in each of said first and second storage devices.

5. A data duplicating method that connects a first information processing system comprised of a first host computer and a first storage device and at least one second information processing system comprised of a second host computer and a second storage device through a data transfer path and holds the same data in duplicate in said first and second information processing systems by asynchronously copying first update data generated in said first information processing system to said second information processing system and having, in said first information processing system, first difference control information for identifying said first update data not copied to said second information processing system,

wherein said second information processing system possesses second difference control information for identifying second update data generated in said second information processing system that takes over and executes a process of said first information processing system when said first information processing system stops operating, and after resumption

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of operation of said first information processing system, said second update data is selectively copied to said first information processing system on the basis of said second difference control information.

6. A data duplicating method according to claim 5, wherein said first and second difference control information are a bit map that indicates the presence or absence of completion of data duplication of said first and second update data at a plurality of individual units of data storage in each of said first and second storage device.

7. A data duplicating method that connects a first information processing system comprised of a first host computer and a first storage device and at least one second information processing system comprised of a second host computer and a second storage device through a data transfer path and constantly holds the same data in duplicate in said first and second information processing systems by synchronously copying first update data generated in said first information processing system to said second information processing system,

wherein said second information processing system possesses second difference control information for identifying second update data generated in said second information processing system that takes over and executes a process of said first information processing system when said first information

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processing system stops operating, and after resumption of operation of said first information processing system, said second update data is selectively copied to said first information processing system on the basis of said second difference control information.

8. A data duplicating method according to claim 7, wherein said second difference control information is a bit map that indicates the presence or absence of completion of data duplication at a plurality of individual units of data storage in each of said first and second storage devices.

9. A data duplicating system comprising a first information processing system comprised of a first host computer and a first storage device, at least one second information processing system comprised of a second host computer and a second storage device and a data transfer path through which data transfer between said first and second information processing systems is carried out, whereby said data duplicating system holds the same data in duplicate in said first and second information processing systems by copying first update data generated in said first information processing system to said second information processing system through said data transfer path,

wherein said second information processing system includes difference control information for identifying second update data generated in said second information processing system while taking over and

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executing a process of said first information processing system when said first information processing system is disabled to operate, and the function to selectively copy said second update data of said second information processing system to said first information processing system on the basis of said difference control information when said first information processing system is enabled to operate.

10. A data duplicating system according to claim 9, wherein said difference control information is a bit map that indicates the presence or absence of completion of duplication of said first and second update data at a plurality of units of data storage in each of said first and second storage devices.

11. A data duplicating system comprising a first information processing system comprised of a first host computer and a first storage device, at least one second information processing system comprised of a second host computer and a second storage device and a data transfer path through which data transfer between said first and second information processing systems is carried out, whereby said data duplicating system holds the same data in duplicate in said first and second information processing systems by asynchronously copying first update data generated in said first information processing system to said second information processing system through said data transfer path,

wherein said first information processing system includes first difference control information for identifying said first update data not copied to said second information processing system; and

said second information processing system includes second difference control information for identifying second update data generated in said second information processing system while taking over and executing a process of said first information processing system when said first information processing system is disabled to operate, and the function to selectively copy data in a range specified by said first and second difference control information to said first information processing system when said first information processing system is enabled to operate.

12. A data duplicating system according to claim 11, wherein said first and second difference control information are a bit map that indicates the presence or absence of completion of data duplication of said first and second update data at a plurality of units of data storage in each of said first and second storage devices.

13. A data duplicating system comprising a first information processing system comprised of a first host computer and a first storage device, at least one second information processing system comprised of a second host computer and a second storage device and a

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data transfer path through which data transfer between said first and second information processing systems is carried out, whereby said data duplicating system holds the same data in duplicate in said first and second information processing systems by asynchronously copying first update data generated in said first information processing system to said second information processing system through said data transfer path,

wherein said first information processing system includes first difference control information for identifying said first update data not copied to said second information processing system; and

said second information processing system includes second difference control information for identifying second update data generated in said second information processing system while taking over and executing a process of said first information processing system when said first information processing system is disabled to operate, and the function to selectively copy said second update data of said second information processing system to said first information processing system on the basis of said second difference control information when said first information processing system is enabled to operate.

14. A data duplicating system according to claim 13, wherein said first and second difference control information are a bit map that indicates the presence

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or absence of completion of data duplication of said first and second update data at a plurality of units of data storage in each of said first and second storage devices.

15. A data duplicating system comprising a first information processing system comprised of a first host computer and a first storage device, at least one second information processing system comprised of a second host computer and a second storage device and a data transfer path through which data transfer between said first and second information processing systems is carried out, whereby said data duplicating system holds the same data in duplicate in said first and second information processing systems by synchronously copying first update data generated in said first information processing system to said second information processing system through said data transfer path,

wherein said second information processing system includes second difference control information for identifying second update data generated in said second information processing system while taking over and executing a process of said first information processing system when said first information processing system is disabled to operate, and the function to selectively copy data in a range specified by said second difference control information to said first information processing system when said first information system is enabled to operate.

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16. A data duplicating system according to claim 15, wherein said second difference control information is a bit map that indicates the presence or absence of completion of data duplication of said first and second update data at a plurality of units of data storage in each of said first and second storage devices.

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